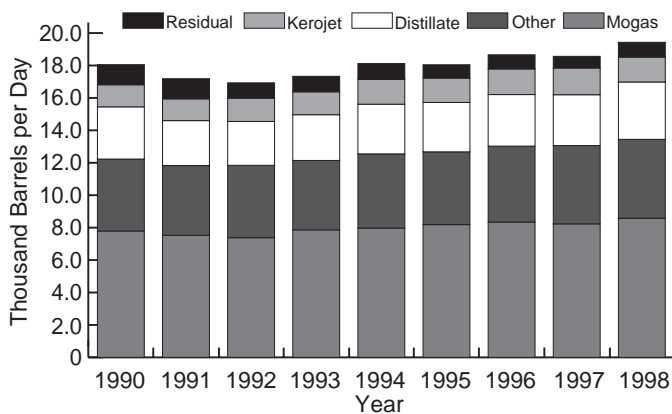


Highlights

Data collected for August by the National Oceanic and Atmospheric Administration reveals that it was another hot month as temperatures averaged 11.8 percent warmer than normal and 26.4 percent warmer than this time last year.¹ Concerning the economic condition of the country, the latest *Beige Book* released by the Federal Reserve Board suggests that the U.S. economy is still expanding at a moderate pace.² Spurred on by favorable economic conditions combined with the hot weather, total demand for refined petroleum products set a record for the month and it reached the **highest level for any month since the record levels of the late 1970's**. Total demand for refined petroleum products in August 1998³ (measured as products supplied) averaged 19.4 million barrels per day (Table & Figure H1).

Figure H1. Total Demand, 1990-Current, Comparison in August for Products



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

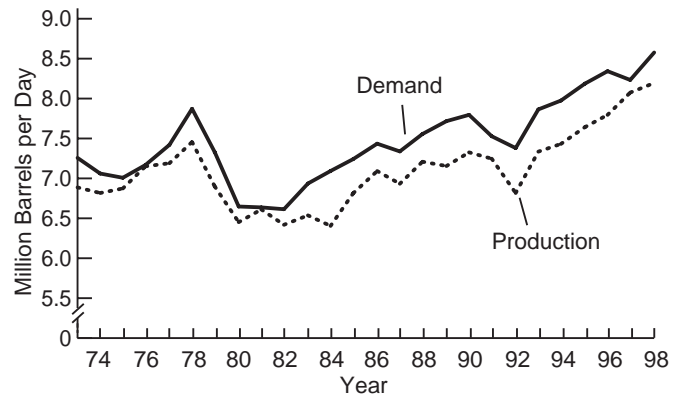
August 1998 highlights include:

- **Demand** for finished motor gasoline set a **record high for the month and the second highest level for a single month ever** at an average of 8.6 million barrels per day. **Production** of finished motor gasoline also set a record high, averaging 8.2 million barrels per day, the highest level ever in August. **Stocks** of finished motor gasoline ended the month at 164.1 million barrels, over 14 million barrels higher than last August.
- **Demand** for distillate fuel oil averaged 3.5 million barrels per day and **production** averaged 3.6 million barrels per day, both record highs for the month. Distillate **stocks** totaled 144.2 million barrels, **more than 11 million barrels above last August's level** and the highest level for August since 1982.
- **Demand** for residual fuel oil was **up more than 26 percent compared to last August**, averaging 911 thousand barrels per day. **Imports** of residual fuel oil averaged 299 thousand barrels per day, the highest level for the month in five years.

Residual fuel oil **stocks** reached their highest level for August since 1994, totaling 39.8 million barrels.

- **Production** of kerosene-type jet fuel set an August record at an average of 1.6 million barrels per day. **Demand** for kerosene-type jet fuel was down to an average of 1.5 million barrels per day compared to the same month last year. Kerosene-type jet fuel **stocks** ended the month at the highest level for August ever totaling 44.5 million barrels.
- Propane inventories totaled 74.7 million barrels, nearly a 25 percent increase over this time last year.
- Crude oil **production** remains similar to the levels in the early 1950's, averaging only 6.3 million barrels per day. Crude oil **imports** set a record high for the month and the second highest monthly level ever, at an average of 9.3 million barrels per day. Crude oil **stocks**, excluding the Strategic Petroleum Reserve (SPR), ended the month at a total of 331.9 million barrels, the highest August level in five years.

Figure H2. Finished Motor Gasoline, Year-to-Year August Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Motor Gasoline

While the summer driving season is coming to a close, **demand** for finished motor gasoline set a **record high for August**, averaging 8.6 million barrels per day (Figure H2). U.S. motorists continued to enjoy low retail prices for motor gasoline, as the U.S. average price of conventional motor gasoline was only \$1.043 per gallon (including taxes) or **about 20 cents per gallon less than last August** (Figure H3).⁴ With continuing low prices for motor gasoline, American motorists have no incentive to change their driving habits or vehicle preferences. A recent survey found that 30 percent of new car buyers will not consider changing their vehicle preferences and 70 percent would only consider changes

¹"Cooling Degree Day Data Monthly Summary, Monthly Data for August 1998", *National Oceanic Atmospheric Administration*, accessible via the Internet at <http://nic.fb4.noaa.gov>.

²"The Beige Book", *Federal Reserve Board*, September 16, 1998, accessible via the Internet at <http://www.bog.frb.fed.us/>.

³August 1998 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.

⁴"Table 16. U.S. Retail Motor Gasoline and On-Highway Diesel Fuel Prices, 1997 to Present", *Weekly Petroleum Status Report*, September 4, 1998, p. 27.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1998			1997	January - August	
	Estimated August	July	Difference ^a	August	1998	1997
Products Supplied	19.4	19.1	0.3	18.6	18.6	18.5
Finished Motor Gasoline.....	8.6	8.7	-0.1	8.2	8.2	8.0
Distillate Fuel Oil.....	3.5	3.3	0.2	3.1	3.5	3.4
Residual Fuel Oil	0.9	0.9	(s)	0.7	0.8	0.8
Jet Fuel.....	1.5	1.6	(s)	1.6	1.5	1.6
Other Petroleum Products ^b	4.9	4.7	0.2	4.8	4.6	4.7
Crude Oil Inputs	15.6	15.5	0.1	15.3	14.9	14.5
Operating Utilization Rate (%)	100.2	100.1	0.1	100.1	97.2	95.6
Imports	11.1	11.2	-0.1	10.5	10.4	10.2
Crude Oil	9.3	9.3	(s)	8.6	8.6	8.1
Strategic Petroleum Reserve	0.0	0.0	0.0	0.0	0.0	0.0
Other.....	9.3	9.3	(s)	8.6	8.6	8.1
Products	1.8	1.8	-0.1	1.8	1.8	2.1
Finished Motor Gasoline.....	0.4	0.3	(s)	0.3	0.3	0.3
Distillate Fuel Oil.....	0.2	0.2	(s)	0.2	0.2	0.2
Residual Fuel Oil	0.3	0.3	(s)	0.2	0.2	0.2
Jet Fuel.....	0.1	(s)	(s)	0.1	0.1	0.1
Other Petroleum Products ^c	0.9	1.0	-0.1	1.1	1.0	1.2
Exports	1.0	1.0	(s)	1.1	1.0	1.0
Crude Oil	0.1	0.1	(s)	0.1	0.1	0.1
Products	0.9	0.9	(s)	1.0	0.9	0.9
Total Net Imports	10.1	10.2	-0.1	9.4	9.4	9.2
Stock Change^d	-0.3	0.4	-0.6	0.4	0.4	0.3
Crude Oil	-0.4	0.2	-0.6	-0.3	0.1	0.1
Products	0.1	0.2	(s)	0.6	0.3	0.2
Total Stocks	1,656	1,665	-8	1,570	—	—
(million barrels)						
Crude Oil	895	903	-7	864	—	—
Strategic Petroleum Reserve.....	563	563	0	563	—	—
Other.....	332	339	-7	301	—	—
Products	761	762	-1	706	—	—
Finished Motor Gasoline.....	164	172	-8	150	—	—
Distillate Fuel Oil.....	144	149	-5	133	—	—
Residual Fuel Oil	40	40	(s)	36	—	—
Jet Fuel.....	45	42	2	43	—	—
Other Petroleum Products ^c	368	359	10	344	—	—

^a Difference is equal to volume for current month minus volume for previous month.

^b Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel.

^c Includes natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil.

^d A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), 1996, *Petroleum Supply Annual*, Volume II; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the December 1997, *Petroleum Supply Monthly*.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1997-1998
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1997												
Gross Refinery Inputs	13,771	13,601	14,156	14,465	15,232	15,300	15,190	15,465	15,533	15,127	14,939	15,188
Operating Refinery Capacity ²	15,168	15,205	15,233	15,229	15,449	15,461	15,462	15,452	15,464	15,464	15,452	15,424
Idle Capacity ³	284	247	399	387	167	177	177	189	139	139	150	204
Idle Three Months or Less	197	160	220	180	0	10	10	22	12	12	12	66
Idle More than Three Months	87	87	179	207	167	167	167	167	127	127	139	139
Operable Refinery Capacity	15,452	15,452	15,632	15,616	15,616	15,638	15,639	15,641	15,602	15,602	15,602	15,628
Utilization Rate (percent)												
Operating Capacity	90.8	89.5	92.9	95.0	98.6	99.0	98.2	100.1	100.4	97.8	96.7	98.5
Operable Capacity	89.1	88.0	90.6	92.6	97.5	97.8	97.1	98.9	99.6	97.0	95.7	97.2
1998												
Gross Refinery Inputs	14,655	14,340	14,851	15,170	15,305	15,651	15,704					
Operating Refinery Capacity ²	15,538	15,555	15,547	15,587	15,617	15,687	15,695					
Idle Capacity ³	167	158	184	144	144	135	135					
Idle Three Months or Less	41	20	46	0	0	0	0					
Idle More than Three Months	127	138	138	144	144	135	135					
Operable Refinery Capacity	15,705	15,713	15,732	15,732	15,761	15,822	15,830					
Utilization Rate (percent)												
Operating Capacity	94.3	92.2	95.5	97.3	98.0	99.8	100.1					
Operable Capacity	93.3	91.3	94.4	96.4	97.1	98.9	99.2					

¹Capacities are on a calendar day basis.

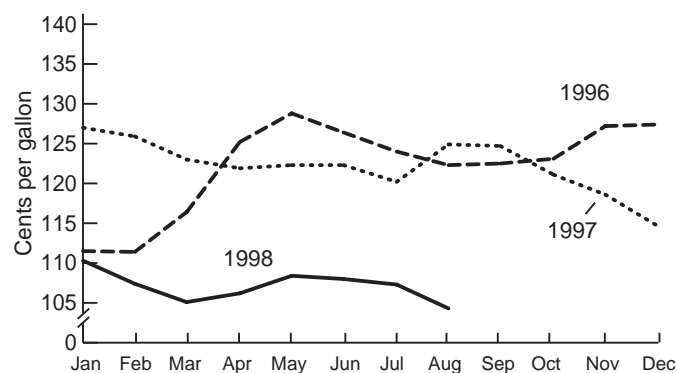
²Operating capacity equals the operable capacity less the total idle capacity.

³Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration (EIA), 1997, *Petroleum Supply Annual*, Volume 2, Table 16; EIA, *Petroleum Supply Monthly*, 1998 data issue, Table 28.

Figure H3. Prices for Conventional Motor Gasoline (including taxes), 1996-current



Source: Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208 (various issues).

in vehicle preferences or driving habits if gas prices increase to more than \$2.00 a gallon.⁵

In an industry with intense competition, refineries continued to maximize gasoline production despite declining margins and bulging product inventories.⁶ **Production** of finished motor gasoline averaged 8.2 million barrels per day in August, establishing a new record for the month. Supplementing domestic production, **imports** of finished motor gasoline reached the highest level for August since 1994, averaging 351 thousand barrels per day. **Stocks** of finished motor gasoline ended the month totaling 164.1 million barrels, the highest level for the month since 1994. Total gasoline stocks, including blending components, totaled 207.9 million barrels.

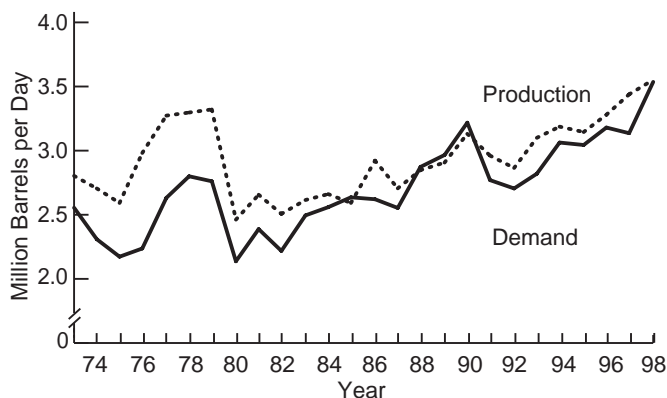
⁵"Gasoline Price Hikes Unlikely To Trigger Consumer Backlash", *Oxy-Fuel News*, June 8, 1998, p. 5.

⁶"MARKETVIEW - Refiners Keep On Running, And Running, And...", *Petroleum Intelligence Weekly*, August 10, 1998, p. 6.

Distillate Fuel Oil

Production of distillate fuel oil set a record for the month, averaging 3.6 million barrels per day (Figure H4). Refineries running at near capacity, continued to squeeze out distillates despite inventory levels already above normal for this time of year.⁷ Demand for distillate fuel oil also set a record high for August. **Demand** for distillates averaged 3.5 million barrels per day, **an increase of nearly 10 percent from the prior high for August** set back in 1990. Increases in both rail road freight traffic and intermodal volume⁸ combined with agricultural activity continue to support the increases in demand for distillates. Distillate fuel oil **imports** were within the normal seasonal range averaging 174 thousand barrels per day. **Stocks** of distillate fuel oils ended the month totaling 144.2 million barrels, more than 11 million barrels higher than last August. Not only are higher production levels adding to the bulging inventories but, a strong contango in the market added incentive to store distillates instead of purchasing them later.⁹ High-sulfur distillate fuel oil comprised a majority of the stocks, totaling 76 million barrels, **an increase of nearly 18 percent compared to this time last year.**

Figure H4. Distillate, Year-to-Year August Comparisons, 1973-1998



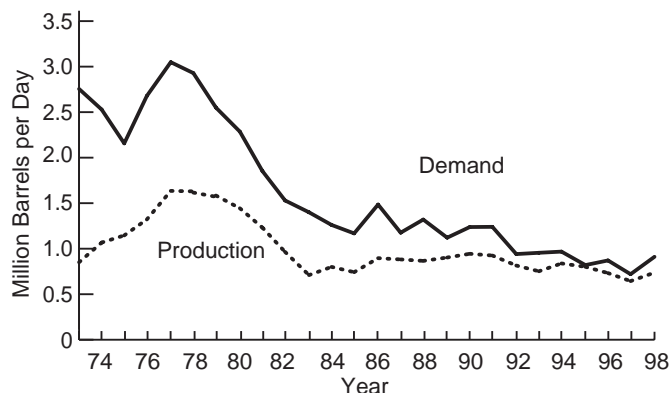
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Residual Fuel Oil

Both production of and demand for residual fuel oil showed increases for the month compared to the last two years (Figure H5). **Production** of residual fuel oil averaged 737 thousand barrels per day, an increase of more than 90 thousand barrels per day compared to last August. **Demand** for residual fuel oil averaged 911 thousand barrels per day, **an increase of more than 26 percent from last August's level.** Residual fuel oil imports reached their highest level for the month in several years, averaging 299 thousand barrels per day. End-of-months **stocks** of

residual fuel oil totaled 39.8 million barrels, the highest level for the month since 1994.

Figure H5. Residual, Year-to-Year August Comparisons, 1973-1998

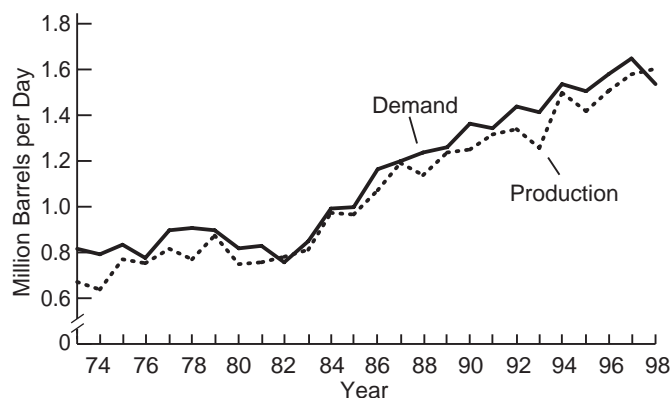


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Kerosene-Type Jet Fuel

Demand for kerosene-type jet fuel averaged 1.5 million barrels per day, down from last year's record level for the month. **Production** of kerosene-type jet fuel set a record high for the month and the highest level this year at an average of 1.6 million barrels per day (Figure H6). Total jet fuel **imports**, kerosene and naphtha-type, averaged 68 thousand barrels per day, low for this time of year. **Stocks** of kerosene-type jet fuel ended the month at 44.5 million barrels, the highest level ever for August.

Figure H6. Kerojet, Year-to-Year August Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

⁷"Heating Oil Season Looks Sick Even If Temperatures Plunge", *Petroleum Intelligence Weekly*, August 17, 1998, p. 2 & 3.

⁸"Traffic Tepid During August", *Association of American Railroads*, September 3, 1998, accessible via the Internet at <http://www.aar.org>.

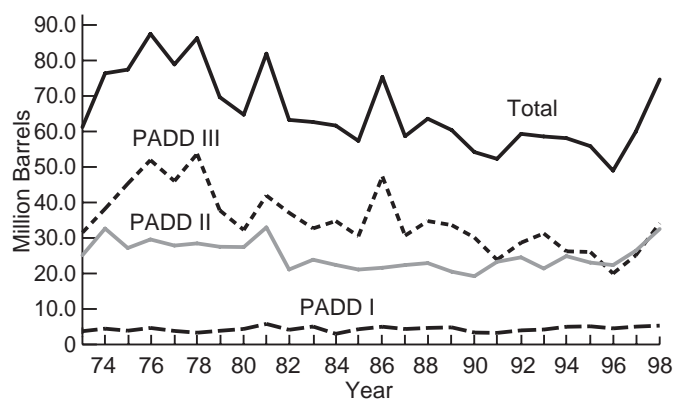
⁹"US distillate builds suggest heating oil season may be over before it even begins", *Platt's Oilgram Price Report*, August 20, 1998, p. 10.

Propane

Propane inventories continued the record summer build-up, reaching the highest level for the month since 1986 (Figure H7). During the month stocks increased 7.6 million barrels, the largest increase ever in August. Inventories of propane totaled 74.7 million barrels by the end of the month, **up nearly 25 percent compared to a year ago**. Inventories in the Midwest witnessed the largest stock build followed by the Gulf Coast then the East Coast. Regionally, inventories in both the Midwest and Gulf Coast are substantially above their seasonal norms while in the East Coast stocks remain moderately above the normal range for this time of year. Gulf Coast inventories ended the month totaling 34.2 million barrels, 9 million barrels above this time last year. In the Midwest, propane stocks stood at 32.5 million barrels, 6.1 million barrels above last August's level. Along the East Coast, propane inventories totaled 5.3 million barrels, nearly 300 thousand barrels more than a year ago.

Deteriorating markets in Europe and Asia continued to shift surplus world supplies of propane to U.S. markets, despite low spot propane prices on the U.S. Gulf Coast. Moreover, petrochemical demand for propane as a feedstock, although relatively still strong, may weaken under the weight of the economic problems in Southeast Asia.

Figure H7. Propane Stocks, Year-to-Year August Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

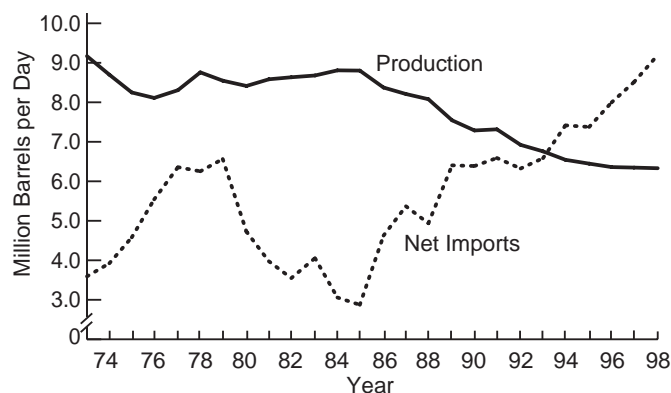
Crude Oil

Domestic production of crude oil remained relatively flat, averaging 6.3 million barrels per day. Production of crude oil in Alaska declined slightly to an average of 1.1 million barrels per

day, **the lowest level for any month since February 1978**. While production of crude oil in Alaska has been in a downward trend, Arco Alaska Inc. and BP Exploration Alaska Inc., have been working to increase production. Recently, commercial production from the Tarn oil field on Alaska's North Slope began at 18 thousand barrels per day and is expected to peak at more than 30 thousand barrels per day in late 1999.¹⁰ **Imports** of crude oil set a new **record high for the month and the second highest one month level ever**, at an average of 9.3 million barrels per day. Putting the crude imports into perspective, net imports—one measure of our dependence on foreign oil—averaged 9.2 million barrels per day, the highest level ever (Figure H8).

Crude oil stocks, excluding the SPR, reached the highest level for the month since 1993, totaling 331.9 million barrels. Total crude oil stocks, including the SPR, ended the month at 895.3 million barrels. Total stocks of crude oil ended the month nearly 31 million barrels above last August's level.

Figure H8. Crude Oil, Year-to-Year August Comparisons, 1973-1998, Production and Net Imports



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Refinery Operations

Thanks to upgrades made over the last year at some of the major refineries more crude oil can be processed today than ever before.¹¹ During August, crude oil **inputs** averaged 15.6 million barrels per day, **a new all time record high**. The estimated refinery **operable utilization rate** was up slightly compared to last year at an average of 99.2 percent versus 98.9 percent last August. As noted earlier, refiners eager to maximize profits and operating in an extremely competitive environment have been weary of cutting throughputs for fear of losing market share, which has pushed throughput at refineries to record levels.¹²

¹⁰“Arco, BP Begin Production From Alaska's Tarn Field”, *The Oil Daily*, August 25, 1998, p. 3.

¹¹“Gasoline Supply Barometer”, *Oil Express*, August 24, 1998, p. 2.

¹²“MARKETVIEW - Refiners Keep On Running, And Running, And...”, *Petroleum Intelligence Weekly*, August 10, 1998, p. 6.